would render the tank unsuitable for use:

(1) *Longitudinal inertia.* The tank loaded to its maximum gross weight must be positioned with its longitudinal axis vertical. It shall be held in this position for five minutes by support at the lower end of the base structure providing vertical and lateral restraint and by support at the upper end of the base structure providing lateral restraint only.

(2) *Lateral inertia.* The tank loaded to its maximum gross weight must be positioned for five minutes with its transverse axis vertical. It shall be held in this position for five minutes by support at the lower side of the base structure providing vertical and lateral restraint and by support at the upper side of the base structure providing lateral restraint only.

(d) *Approval of smaller tanks of the same design.* Design approval must include the prototype testing of at least one tank of each design and each size; however, a set of tests made on a tank of one size may serve for the approval of smaller tanks with equal or lesser diameter and length) made of the same material and thickness by the same fabrication technique and with identical supports and equivalent closures and other appurtenances.

(e) *Pressure and vacuum relief devices.* Each spring loaded relief device must be tested for the accuracy of the setting prior to installation on a tank and must be effectively sealed to maintain the required setting.

[Amdt. 178–65, 46 FR 9898, Jan. 29, 1981; 46 FR 24184, Apr. 30, 1981]

§178.270–14 Marking of tanks.

(a) *General.* Each tank must bear a corrosion resistant metal identification plate that is permanently attached to the portable tank and readily accessible for inspection. The information required in paragraph (b), and, when appropriate, paragraph (c) of this section must be stamped, embossed or otherwise marked by an equally durable method on the plate in characters at least 3 mm (0.118 inches) high. The plate must not be painted.

(b) *Required information.* At least the following information must appear on the metal identification plate for each tank:

(1) US DOT Specification number.

(2) Country of manufacture.

(3) Manufacturer's name.

(4) Date of manufacture.

(5) Manufacturer's serial number.

(6) Identification of USA/DOT approval agency and approval number.

(7) Maximum allowable working pressure, in bar or psig.

(8) Test pressure, in bar or psig.

(9) Total measured water capacity at 20°C (68°F), in liters or gallons.

(10) Maximum allowable gross weight, in kg or lbs.

(11) Equivalent minimum shell thickness in mild steel, in mm or inches.

(12) Tank material and specification number.

(13) Metallurgical design temperature range, in °C and °F.

(c) *Additional information.* The following additional information must appear on the metal identification plate when applicable:

(1) Lining material.

(2) Heating coil maximum allowable working pressure in bar and psig.

(3) Corrosion allowance, in mm or in.

(d) In addition to the markings required above, each tank used in international transport must have a Safety Approval Plate containing the information required in §§451.21 through 451.25 of this title.

(e) Nothing in this section shall be deemed to preclude the display of other pertinent information on the required metal identification plate.

[Amdt. 178–65, 46 FR 9899, Jan. 29, 1981]

§178.271 Specification IM 101 steel portable tanks.

§178.271–1 General requirements.

(a) Specification IM 101 portable tanks must conform to the general design and construction requirements in §178.270 of this subpart in addition to the specific design requirements contained in this section.

(b) The maximum allowable working pressure of each tank shall be equal to or greater than 1.75 bar (25.4 psig) and less than 6.8 bar (100 psig).

(c) Each tank shall be designed and constructed in accordance with the requirements of Section VIII, Division 1,